

## REMARKS

Applicant is grateful for the Examiner's allowance of claims 6-21, 23-24 and 26-57. Claims 1-5, 22 and 25 remain rejected over the Martin et al. '305 patent. As set forth in greater detail in Applicant's previous responses, Applicant's invention is significantly different from that of Martin et al. Martin et al. recognizes that catalytic converters typically operate in the range of 500° to 800° Fahrenheit but that catalytic converters are unsuitable for treating soot-laden gases commonly produced by diesel engines because the catalytic devices, according to Martin et al., are ineffective in destroying soot and, secondly, that the soot is deposited upon the catalytic material thereby deactivating or poisoning the catalyst. Martin et al. correctly recognizes that typical catalytic converters operate in a temperature range between 500° and 800° Fahrenheit but that, according to Martin et al., such temperature ranges are insufficient to incinerate particulate matter or soot in the exhaust gas stream of a diesel or similar devices. Martin et al. teaches the use of a separate incineration device or housing which operates in the temperature range from about 1400° to 3500° Fahrenheit which, according to Martin et al., provides an environment for incinerating the particulate matter or soot in the exhaust. Martin et al., however, also recognizes that such temperature ranges are unsuitable for catalytic converters and can in fact damage the catalytic materials. Martin et al. thus discloses separating the incineration chamber physically from the catalytic

converter which is preferably situated downstream in the exhaust so that the catalytic materials will not be damaged by the high temperatures.

What Applicant has as a feature of his invention is a heating chamber which initiates the incineration of particulate matter in the exhaust gas stream and which initiates the performance of the catalytic converter but at no time is the entire housing heated above the maximum operating temperature of the catalytic converter.

In addition, as disclosed by Applicant's specification, it is possible in some types of operation that after the exhaust purification system has initiated its operation and reached a steady state of operation, the heating assembly through its control system can be selectively shutdown and the catalytic reaction in the second chamber will sustain without additional heat. Applicant perceives the ability to shut off the heating system as more likely useful in steady-state constant RPM operations of a diesel engine rather than the changing speeds an operator might employ in an installation where the diesel engine is driving a vehicle, for example.

Because the claims now clearly differentiate Applicant's device from that of the prime reference Martin et al. '305, allowance of newly amended claims 1, 2, 22 and 25 and new dependent claim 58 is in order. Those claims originally dependent on claims 1 and 22 are now also in condition for allowance.

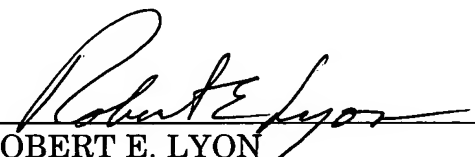
Respectfully submitted,

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